



NCCN Chemotherapy Order Templates (NCCN Templates®)
Appendix A

Appendix A: Chemotherapy Calculations

Body Surface Area (BSA)

Author	BSA formula
Mosteller ¹	$BSA (m^2) = \sqrt{\frac{height (cm) \times weight (kg)}{3600}}$ OR $BSA (m^2) = \sqrt{\frac{height (in) \times weight (lbs)}{3131}}$
DuBois and DuBois ²	$BSA (m^2) = Weight (kg)^{0.425} \times Height (cm)^{0.725} \times 0.007184$
Haycock et al ³	$BSA (m^2) = Weight (kg)^{0.5378} \times Height (cm)^{0.3964} \times 0.024265$
Gehan and George ⁴	$BSA (m^2) = Weight (kg)^{0.51456} \times Height (cm)^{0.42246} \times 0.02350$
Boyd ⁵	$BSA (m^2) = Weight (kg)^{0.4838} \times Height (cm)^{0.3} \times 0.017827$

Cockcroft-Gault Equation⁶

$$CrCl (male; mL/min) = \frac{(140 - age) \times (weight \text{ in kg})}{72 \times \text{serum creatinine (mg/dL)}}$$

$$CrCl (female; mL/min) = 0.85 \times CrCl (male)$$

Calvert Equation⁷

$$\text{Carboplatin Dose (mg)} = \text{Target area under the curve (AUC mg/min/mL)} \times (\text{GFR}^* + 25)$$

*GFR estimated by calculated creatinine clearance using Cockcroft-Gault Equation (see above).

REFERENCES

1. Mosteller RD. *N Engl J Med*. 1987;317(17):1098.
2. DuBois D, DuBois EF. *Arch Int Med*. 1916;17:863-71.
3. Haycock GB, Schwartz GJ, Wisotsky DH. *J Pediatr*. 1978;93(1):62-6.
4. Gehan EA, George SL. *Cancer Chemother Rep*. 1970;54(4):225-35.
5. Boyd E. *The growth of the surface area of the human body*. Minneapolis: University of Minnesota Press, 1935.
6. Cockcroft DW, Gault MH. *Nephron*. 1976;16(1):31-41.
7. Calvert AH, Newell DR, Grumbrell LA, et al. *J Clin Oncol*. 1989;7:1748-56.